

## PROGRAM GUIDE SYSTEM WITH ADVERTISEMENTS

Background of the Invention

This invention relates to interactive television program guides, and more particularly, to techniques for presenting advertising to users of such television program guides.

Cable, satellite, and broadcast television systems provide viewers with a large number of television channels. Viewers have traditionally consulted printed television program schedules to determine the programs being broadcast at a particular time. More recently, interactive electronic television program guides have been developed that allow television program information to be displayed on a viewer's television.

Interactive program guides are typically implemented on set-top boxes. Such program guides allow users to view television program listings in different display formats. For example, a user may instruct the program guide to display a grid of program listings organized in a channel-ordered or a time-ordered list. Users may also search and sort program

listings by theme (e.g., movies, sports, etc.) or by  
title (i.e, alphabetically). A user may obtain  
additional information for a program by placing a  
highlight region on a desired program listing and  
5 pressing an "info" key. The user may purchase a pay  
program from the program guide or may set a reminder  
for a future program by placing the highlight region on  
a program listing and pressing an "OK" key. Some  
systems allow the user to select a program for  
10 recording by placing the highlight region on a program  
listing and pressing a "record" key.

Although interactive program guides  
facilitate the user's task of locating programming of  
interest, it would be desirable if more information and  
15 more options were available to the user. For example,  
it would be desirable if advertisements were available  
in the program guide to give the user access to more  
information and services.

It is therefore an object of the present  
20 invention to provide an interactive television program  
guide system that provides advertising on various  
program guide screens.

It is also an object of the invention to  
provide an interactive television program guide system  
25 with interactive advertising.

It is also an object of the invention to  
provide ways in which a user may navigate to various  
program guide advertisements.

#### Summary of the Invention

30 These and other objects of the invention are  
accomplished in accordance with the principles of the

present invention by providing a system having an interactive television program guide that provides advertising on various program guide screens. Banner advertisements may be displayed above and below a  
5 program listings region. The user may scroll the program listings in the program listings region by using a cursor key to move a highlight to the upper or lower banner advertisement and by then activating the cursor key another time.

10 Advertisements may contain text, graphics (including animation), and video. Advertisements may also contain a list of program options.

Embedded advertisements may be provided in the program listings region. The program guide may  
15 display such embedded advertisements immediately adjacent to a related program listing. For example, a program advertisement for "Seinfeld" may be placed immediately adjacent to a program listing for the channel NBC, which is the channel on which the program  
20 "Seinfeld" is scheduled to appear.

Panel advertisements may be provided adjacent to the program listings. A highlight may be navigated between the program listings in the program listings region and the panel advertisements using dedicated  
25 remote control navigation keys (e.g., keys labeled "A," "B," and "C"), each of which is associated with a particular region of the screen (e.g., one of the panel advertisements or the program listing region.) This type of arrangement may also be used to navigate to  
30 banner advertisements.

Another way in which to navigate to the panel advertisements is to use remote control cursor keys.

If embedded advertisements are provided in the program listings region, they may be used as navigational bridges between the program listings region and the panel advertisements. The highlight may also be  
5 navigated from the program listings region to the panel advertisements without using such navigational bridges if desired.

Further features of the invention, its nature and various advantages will be more apparent from the  
10 accompanying drawings and the following detailed description of the preferred embodiments.

#### Brief Description of the Drawings

FIG. 1 is a diagram of a system in which an interactive television program guide is implemented in  
15 accordance with the present invention.

FIG. 2 is a diagram of a system similar to the system of FIG. 1 showing how servers may be located at network nodes in accordance with the present invention.

20 FIG. 3 is a diagram of an illustrative program guide screen containing panel advertisements and a program listings region in accordance with the present invention.

FIG. 4a is a simplified plan view of an  
25 illustrative remote control in accordance with the present invention.

FIG. 4b is a simplified plan view of another illustrative remote control in accordance with the present invention.

30 FIG. 5 is a diagram of an illustrative program guide screen containing advertising information

FIG. 6 is a diagram of illustrative  
advertising options in accordance with the present  
5 invention.

10           FIG. 8 is a diagram of an illustrative  
program guide screen containing panel advertisements  
and a program listings region having an embedded  
advertisement that may be scrolled with the program  
listings in accordance with the present invention.

20           FIG. 10 is a diagram of an embedded advertisement arrangement in which the user may page through the program listings without disturbing the position of the advertisement in accordance with the present invention.

30           FIGS. 12a and 12b are diagrams illustrating  
how a user may navigate a highlight to selectable logos  
in accordance with the present invention.

FIG. 19 is a diagram of an illustrative program guide screen that may be provided when the user

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### Detailed Description of the Preferred Embodiments

An illustrative program guide system 30 in accordance with the present invention is shown in FIG. 1. Main facility 32 contains a program guide database 34 for storing program guide information such as television program guide listings data, pay-per-view ordering information, television program promotional information, etc. Main facility 32 also contains an advertising database 36 for storing advertising information. Information from databases 34 and 36 may be transmitted to television distribution facility 38 via communications link 40. Link 40 may be a satellite link, a telephone network link, a cable or fiber optic link, a microwave link, a combination of such links, or any other suitable communications path. If it is desired to transmit video signals (e.g., for advertising and promotional videos) over link 40 in addition to data signals, a relatively high bandwidth link such as a satellite link is generally preferable to a relatively low bandwidth link such as a telephone line.

Television distribution facility 38 is a facility for distributing television signals to users, such as a cable system headed, a broadcast distribution facility, or a satellite television distribution facility.

The program guide information transmitted by main facility 32 to television distribution facility 38 includes television program listings data such as program times, channels, titles, descriptions, etc. Transmitted program information also includes pay program data such as pricing information for individual



The advertising information transmitted by main

5 facility 32 to television distribution facility 38  
includes text, graphics, and video advertisements for  
various products and services. If desired, some of the  
program guide and advertising information may be  
provided using data sources at facilities other than  
10 main facility 32. For example, data related to pay  
program order processing (e.g., billing data and the  
like) may be generated by an order processing and  
billing system that is separate from main facility 32  
and separate from television distribution facility 38.  
15 Similarly, advertising information may be generated by  
an advertising facility that is separate from main  
facility 32 and television distribution facility 38.

Regardless of its source, advertising information may be maintained on a server 42 within television distribution facility 38 if desired. Server 42 may be capable of handling text, graphics, and video.

Television distribution facility 38 distributes program guide and advertising information to the user television equipment 44 of multiple users via communications paths 46. User television equipment 44 may be any suitable equipment for providing television to the user that contains sufficient processing capabilities to implement an interactive television program guide. Paths 46 may be cable links, fiber optic links, satellite links, broadcast links, or other suitable link or combination of such links. Any

suitable communications scheme may be used to transmit data over paths 46, including in-band transmissions, out-of-band transmissions, digital transmissions, analog transmissions, cable transmissions, satellite  
5 transmissions, over-the-air transmissions, multichannel multipoint distribution services (MMDS) transmissions, etc.

If desired, program guide data may be distributed over an out-of-band channel on paths 46 or  
10 over an in-band path such as the vertical blanking interval (VBI). Advertising information may be distributed using any of a number of suitable techniques. For example, text and graphics advertisements may be distributed over an out-of-band  
15 channel using an out-of-band modulator. Video advertisements may also be distributed in this way, although large quantities of video information may be more efficiently distributed using one or more digital channels on path 46. Such digital channels may also be  
20 used for distributing text and graphics.

Each user has a receiver, which is typically a set-top box such as set-top box 48, but which may be other suitable television equipment such as an advanced television receiver into which circuitry similar to  
25 set-top-box circuitry has been integrated or a personal computer television (PC/TV). Program guide data is distributed to set-top boxes 48 periodically. Television distribution facility 38 may also poll set-top boxes 48 periodically for certain information  
30 (e.g., pay program account information or information regarding programs that have been purchased and viewed using locally-generated authorization techniques).

5 application on the set-top box 48. Television  
distribution facility 38 may contain a processor for  
handling tasks associated with the distribution of  
program guide and advertising information.

During use of the interactive television program guide implemented on set-top box 48, television 20 program listings may be displayed on television 52. Each set-top box 48, videocassette recorder 50, and television 52 may be controlled by one or more remote controls 54 or any other suitable user input interface such as a wireless keyboard, mouse, trackball, 25 dedicated set of keys, etc.

Communications paths 46 preferably have sufficient bandwidth to allow television distribution facility 38 to distribute scheduled television programming, pay programming, advertising and other promotional videos, and other video information to set-top boxes 44 in addition to non-video program guide and advertising data. Multiple television and audio

channels (analog, digital, or both analog and digital) may be provided to set-top boxes 48 via communications paths 46. If desired, program listings and advertising information may be distributed by one or more  
5 distribution facilities that are similar to but separate from television distribution facility 38 using communications paths that are separate from communications paths 46.

Certain functions such as pay program  
10 purchasing may require set-top boxes 48 to transmit data to television distribution facility 38 over communications paths 46. If desired, such data may be transmitted over telephone lines or other separate communications paths. If functions such as these are  
15 provided using facilities separate from television distribution facility 38, some of the communications involving set-top boxes 48 may be made directly with the separate facilities.

Users may interactively order additional  
20 information, products, or services. Such orders may be satisfied by fulfillment facilities 49 and 51. If desired, orders may be transmitted directly to fulfillment facilities such as fulfillment facility 51 via links 53, which may be telephone links, the  
25 Internet, or other suitable communications links. Orders may also be transmitted to television distribution facility 38 via links 46, where the billing system of the television distribution facility may be used. After the television distribution  
30 facility 38 has processed the user's order, television distribution facility 38 may transmit the order to fulfillment facility 49 via link 55.

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A number of suitable techniques may be used to distribute videos related to advertising. For example, if each path 46 includes a number of traditional analog television channels, one or more of these channels may be used to support a number of digital channels. The bandwidth of each analog channel that is used to support digital channels may support ten or more of such digital channels. If desired, videos may be provided from server 42 in a continuously looped arrangement on these digital channels. Information provided to set-top box 48 may then be used to determine which digital channels to tune to when it is time to display a desired video. Alternatively, videos may be provided on demand. With this approach, set-top box 48 and server 42 may negotiate to determine a channel on which to provide the desired video. Videos that originate from main facility 32 or a separate facility are preferably distributed to user television equipment 44 using these or other suitable techniques.

As shown in FIG. 2, the capabilities of server 42 may be provided using servers 56 located at network nodes 58. Servers such as servers 56 may be used instead of server 42 or may be used in conjunction with a server 42 located at the television distribution facility.

Graphics information for advertisements may be downloaded periodically (e.g., once per day) to set-top boxes 48 of FIG. 1 and stored locally. The graphics information may be accessed locally when needed by the program guide implemented on set-top box 48. Alternatively, graphics information may be

provided in a continuously-looped arrangement on one or more digital channels on paths 46. With such a continuously-looped arrangement, a map indicating the location of the latest graphics information is

5 preferably downloaded periodically to set-top boxes 48 (e.g., once per day). This allows the content on the digital channels to be updated. The program guides on set-top boxes 48 may use the map to locate desired graphics information on the digital channels. Another

10 approach involves using a server such as server 42 or servers 56 (FIG. 2) to provide the graphics information after a set-top box 48 and that server have negotiated to set up a download operation. A bitmap or other suitable set of graphics information may then be

15 downloaded from the server to the set-top box. If desired, the server may download instructions informing the set-top box where the desired graphics information can be located on a particular digital channel. The graphics information can be updated periodically if the

20 server that is responsible for downloading the instructions for informing the set-top box of the location of the graphics information is also updated periodically.

Text information for advertisements may be

25 provided to set-top boxes 48 using the same paths that are used for distributing program guide data. For example, advertising data from database 36 of FIG. 1 may be provided to set-top boxes 48 using link 40, television distribution facility 38, and paths 46. The

30 text information may be stored locally in set-top boxes 48 and updated periodically (e.g., once per day).

Text information, graphics information, and videos for advertisements may also be distributed using a combination of these techniques or any other suitable technique.

5           If desired, advertising related information (whether video, graphics, text, or a combination of video, graphics, and text) may be presented to the user based on the user's interests, as determined by the user's interactions with the program guide. This is  
10 described in Knudson et al. U.S. patent application Serial No. 09/034,939, filed March 4, 1998, which is hereby incorporated by reference herein in its entirety.

As shown in FIG. 3, the program guide of the  
15 present invention may display a program guide screen such as by time listings screen 60 that contains advertising information in the form of panel advertisements 62 and 64. Although the advertisements depicted in FIG. 3 are shown in the context of a by  
20 time program guide listings screen, advertisements may be displayed as part of any program guide screen if desired. Examples of program guide screens on which advertisements may be displayed include a menu screen, a by channel listings screen, a screen containing  
25 program listings for premium channels, a pay-per-view listings screen, a screen containing programs for a particular genre of programming, a help screen, a music channel menu, a search screen, etc.

The content of advertisements 62 and 64 may  
30 be cycled over a suitable time period (e.g., every few seconds) if desired. Transitions between advertisements such as advertisements 62 and 64 or

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Remote control 74 of FIG. 4a has channel up and down keys 76, numeric keys 78, up, down, right, and left cursor keys 80, a select or "OK" key 82, and functions keys 84. Function keys 84 may include a "menu" key, an "exit" key, a "guide" key, and keys for other program guide functions. Various other keys such as a power on/off key, volume control keys, etc. are typically provided on remote control 74, but are not shown in FIG. 4a to avoid over-complicating the drawing.

If desired, a remote control may be provided that has dedicated buttons 75 with the same shape and layout as the advertisements and program listings on the display screen, as shown in FIG. 4b. Pressing button 75a takes the user to the upper panel advertisement. Pressing button 75b takes the user to the lower panel advertisement. Pressing button 75c takes the user to the program listings region.

As shown in FIG. 3, program guide screens such as screen 60 may be provided with a cable system operator ("MSO") logo 88 and a logo 90 for the provider of the program guide. Any other suitable logos may be provided if desired. A title 92 may be provided to indicate the type of program guide screen that is currently being displayed. The current time and the channel to which set-top box 48 is tuned may be displayed in current time and channel region 93.

Program listings 95 in program listings region 70 may be arranged in a channel ordered list (in the vertical dimension) and by time (in the horizontal orientation). Program listings region 70 typically contains program title information for various

television programs and may include descriptive information such as plot summaries, actors, ratings, etc.

Advertisements such as advertisements 62 and 5 64 may include text, graphics, and video information. A user may select an advertisement of interest by highlighting that advertisement using navigation keys 86 and pressing "OK" key 82 of remote control 74 (FIG. 4). The program guide may take various actions 10 when an advertisement is selected by the user. For example, the program guide may provide a screen such as screen 94 of FIG. 5 that contains text advertising information 96, graphics advertising information 98 (which may include animation), and video advertising 15 information 100. Screen 94 may also contain advertising options 102 that provide the user with further opportunities to view information, place an order, etc.

The action taken by the program guide when a 20 user selects an advertisement varies depending on the type of advertisement. For example, if the advertisement is a promotion for a television program, the program guide may provide the user with an opportunity to tune to the program (if it is currently 25 being broadcast) or to set a reminder for the program (if it is to be broadcast in the future). If the program being promoted in the advertisement is a pay-per-view program, the program guide may provide the user with an opportunity to order the program. If the 30 advertisement is a promotion for a television channel, the program guide may display program listings for that channel.

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option 108 to view a video tour of the new truck, an  
option 110 to view a list of local dealers, an option  
112 to view or request financing information, or an  
option 114 to purchase the truck. Additional options  
5 may be accessed by scrolling up or down, as indicated  
by arrows 116.

As shown in FIG. 7, an embedded selectable  
advertisement 118 may be provided within program  
listings region 120 of program guide screen 122. The  
10 user may access region 120 by pressing the "C"  
navigation key 86c on remote control 74 (FIG. 4a).  
Selecting program listings region 120 causes the  
program guide to display highlight 122 at a suitable  
location within the program listings region. For  
15 example, highlight 122 may be placed on the program  
listing that was most recently highlighted or may be  
placed on the program listing at the top of program  
listings region 120.

Advertisement 118 may be fixed or may scroll  
20 with the program listings. If advertisement 118  
scrolls with the program listings in region 120,  
pressing the down cursor key 80 when the highlight is  
on the program listing for channel 9 as shown in FIG. 7  
will cause the listings to scroll to the positions  
25 shown in FIG. 8. As shown in FIG. 8, highlight region  
122 has moved to the program listing for the next  
program in region 120 (i.e., the listing for channel  
10). Moreover, advertisement 118 has moved up one line  
relative to its position in FIG. 7. Using the up  
30 cursor key 80 when highlight 122 is in the top position  
of program listings region 120 causes the program

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animated graphic advertisement that appears to slide into the program listings region 124 dynamically, as shown in FIG. 11b. When the animated sliding movement is complete, the program listings region 124 appears as shown in FIG. 11c, with advertisement 128 embedded in program listings 126. The animated movement shown in FIGS. 11a, 11b, and 11c is illustrative only. Any other suitable type of special effect may be used to display advertisement 128. Examples of special effects that may be used include fades, wipes, bounces, and morphs.

As shown in FIGS. 12a and 12b, the program guide may allow the user to position highlight region 138 on logos such as MSO logo 130 and program guide provider logo 132 that are not in the program listings region 136. In the arrangement shown in FIG. 12a, the user may navigate to logo 130 from advertisement 134 using an up cursor key 80. The user may navigate from logo 130 to advertisement 134 using a down cursor key 80. Navigation between logo 130 and logo 132 may be accomplished using left and right cursor keys. In the arrangement of FIG. 12b, navigation to guide provider logo 132 is also possible using the up cursor key from program listings region 136. Initially, pressing the up cursor key 80 scrolls the program listings in program listings region 136. After the user has scrolled to the first program listing in the list (e.g., channel 1), further use of the up cursor key 80 causes highlight region 138 to be repositioned from the channel 1 program listing to logo 132, as shown in FIG. 12b.

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When the user has positioned highlight 150 on one of program listings 152 in program listings region 140, subsequent use of the left and right cursor keys 80 directs the program guide to display program listings for different times. In the example of FIG. 13, pressing the right cursor key 80 directs the program guide to display program listings for 5:30 PM

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FIG. 15 shows how the program guide may provide advertisements in the form of banner advertisements 168 and 170 positioned above and below the program listings region 172. Advertisement 170 is shown as containing video 171. FIG. 15 shows how advertisements 168 and 170 and program listings region 172 may have labels 174 to assist in navigation between portions of the screen when using special navigational keys such as navigation keys 86 on remote control 74 of FIG. 4a. When the user presses navigation key 86a of remote control 74, the program guide positions highlight 176 on banner advertisement 168. When the user presses navigation key 86b of remote control 74, the program guide positions highlight 176 on banner advertisement 170. When the user presses navigation key 86c of remote control 74, the program guide positions highlight 174 on one of the program listings in program listings region 172 (e.g., the uppermost program listing or the most recently highlighted program listing). If desired, numeric keys may be used as the special navigation keys, rather than dedicated keys 86a, 86b and 86c.

FIG. 16 shows how the program guide may allow the user to navigate to banner advertisements such as banner advertisements 178 and 180 from program listings region 182 without the use of navigation keys such as dedicated navigation keys 86a, 86b, and 86c of remote control 74 (FIG. 4a). With the arrangement illustrated

in FIG. 16, when the user has positioned highlight 184 on the lowermost program listing in program listings region 182 (i.e., the channel 5 program listing as shown in the upper screen of FIG. 16), subsequent

5 activation of down cursor key 80 directs the program guide to reposition highlight region 184 on lower banner advertisement 180, as illustrated in the middle screen of FIG. 16, rather than immediately scrolling the program listings in program listings region 182.

10 Further activation of down cursor key 80 directs the program guide to display the next page of program listings in program listings region 182, as shown in the lower screen in FIG. 16, while repositioning highlight 184 on banner advertisement 178. The user

15 may then activate down cursor 80 to position highlight 184 on a desired listing.

The user may navigate to upper banner advertisement 178 using the up cursor key 80. When the user has positioned highlight 184 on the uppermost

20 program listing in program listings region 182, subsequent activation of up cursor key 80 directs the program guide to reposition highlight region 184 on upper banner advertisement 178. Activation of up cursor key 80 when highlight region 184 is positioned

25 on advertisement 178 directs the program guide to display the previous page of program listings in program listings region 182, while repositioning highlight region 184 on banner advertisement 180. The user may then activate up cursor 80 to position

30 highlight 184 on a desired listing.

Advertisements may be used to promote any desired type of product or service. When

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advertisements are used to promote television programs,  
the program guide may allow the selection of an  
advertisement to provide access to program guide  
features that might otherwise be accessed by selecting  
5 a program listing from a program guide screen.

Features that may be accessed in this way include  
viewing (tuning to) a program, recording a program,  
setting a reminder for a program, etc. This allows  
advertisements to be used to promote programs, thereby  
10 generating revenue and increasing the user's awareness  
of the availability of the advertised programs, while  
continuing to provide the user with the same program  
guide features with which the user is most familiar.

For example, if the user selects  
15 advertisement 186 of FIG. 17 for the program "ER," the  
program guide may present screen 188 of FIG. 18, which  
contains a program description 190 for an episode of  
ER, advertisements 192 and 194, and program options  
196. Program options 196 include "exit" (to exit  
20 screen 188), "view" (to tune to the channel for ER),  
and "record" (to instruct the program guide implemented  
in set-top box 48 to direct videocassette recorder 50  
to record ER). Other options may be accessed by using  
left and right cursor keys 80, as indicated by arrows  
25 198.

The program options that may be provided  
depend on the type of program being advertised in the  
selected advertisement. For example, if a selected  
advertisement is for a future program, the program  
30 guide might provide the user with an opportunity to set  
a reminder for the program. As shown in FIG. 19, if an  
advertisement for a pay-per-view program is selected,

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5 be provided, e.g., over a digital channel on path 46),  
a still image, or other such material.

10 designed to attract viewer interest or may be more  
neutral reviews of the program being described.

15 region 218 contains an embedded advertisement 220.  
Navigation between the advertisements and program  
listings of screen 213 may be accomplished using up and  
down cursor keys as shown in FIG 16.

20 20, the user is presented with screen 222. Because the  
program "Volcano" that is the subject of advertisement  
214 is a pay-per-view program, selecting advertisement  
214 directs the program guide to display pay-per-view  
program options 224 as part of pay-per-view description  
25 box 226. Program options 224 include options to buy  
the program Volcano (e.g., by impulse ordering or by  
calling a certain telephone number), to record the  
program, or to cancel the presentation of box 226 and  
options 224. Box 226 may also include information 230  
30 on the channel and airtimes of the program of interest.  
With the arrangement of screen 222, the uppermost  
program listing from program listings region 218 of

screen 213 (i.e., the program listing 228 for the  
program "Andy Griffith") is still displayed. This  
provides the user with a visual cue that the program  
listings of program listings region 218 are still  
5 available if the user selects "cancel."

If the user selects advertisement 216 of FIG.  
20, the user is presented with screen 232. Because the  
program "ER" that is the subject of advertisement 216  
is not currently being broadcast and is not a pay-per-  
10 view program, selecting advertisement 216 directs the  
program guide to display program options 234 as part of  
description box 236. Program options 234 include  
options to set a reminder for the program (so that the  
program guide will generate a reminder message when the  
15 program is about to be aired), to record the program,  
or to cancel. With the arrangement of screen 232, the  
uppermost program listing from program listings region  
218 of screen 213 (i.e., the program listing 238 for  
the program "Andy Griffith") is still displayed. This  
20 provides the user with a visual cue that the program  
listings of program listings region 218 are still  
available if the user selects "cancel."

When the program guide displays screens 222  
and 232, the program descriptions information and  
25 program options are displayed on the lower portion of  
the screen, so that upper banner advertisement 214 is  
not blocked. Logos 240 and 242 may be displayed on  
screens 213, 222, and 232. The current time and  
channel to which set-top box 48 is tuned may be  
30 displayed simultaneously or periodically (e.g.,  
alternating every few seconds) in region 244. The

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As shown in FIG. 21, the program guide may automatically position embedded advertisements such as embedded advertisement 248 immediately adjacent to the program listings for the channel (e.g., channel 1) that the embedded advertisement is promoting. For example, advertisement 248 may contain text and graphics that promote program "X" on channel 1. Advertisement 248 is immediately adjacent to program listing 252 for channel 1. The content of the embedded advertisement need not be directly related to the promotion of the adjacent program, but may be related to the adjacent program in some other way. For example, an embedded advertisement for football souvenirs may be placed immediately adjacent to the program listing for a football game. If desired, the program guide may provide the user with an opportunity to purchase an advertised product by selecting such an advertisement. Because advertisements such as advertisement 248 may contain colorful text, graphics (including animation), and video that attract the user's attention to the subject of the advertisement, placing such advertisements adjacent to their associated program listings may increase the user's interest in the program listings. Embedded advertisements may be repositioned with the program listings (e.g., during scrolling or paging of the program listings by the user), so that they remain immediately adjacent to their associated program listings.

If the embedded advertisement is for a program, users who are attracted to the advertisement

does not have to scroll through the listings  
(potentially for many pages) to locate the program  
listings for the program being promoted. This provides  
the user with a simple visual indication of the  
5 association between, e.g., the channel 1 program  
listing and the adjacent embedded advertisement. It  
also provides the user with access to both the original  
program listing for the program and the advertisement.  
Because the content of the description and the options  
10 that are available may differ between the program  
listing and the advertisement, access to both the  
program listings and the advertisement provides the  
user with more options.

Moreover, users who are interested in certain  
15 program listings often revisit those program listings.  
The advertising space adjacent to such program listings  
may therefore be desirable for certain advertisers.  
Routinely positioning embedded advertisements  
immediately adjacent to associated program listings,  
20 may increase the value of such embedded advertisements  
to advertisers.

As shown in FIG. 22, advertisements may be  
related to a particular channel (e.g., the channel  
"HBO"). If the user selects HBO advertisement 252 of  
25 screen 254, the program guide may present a screen such  
as screen 256. Screen 256 contains an advertisement  
258 that is related to HBO. Advertisement 258 is shown  
as containing a graphic image 260, but may contain any  
suitable combination of text, graphics (including  
30 animation), and video. Program listings region 262  
contains a time-ordered list of programs scheduled to  
appear on HBO. Highlight 264 in screen 256 is

positioned on top of a menu option 266 for the channel "HBO." The user can navigate to menu option 268 (for the channel "SHO") and menu option 270 (for the channel "TBS") using left and right cursor keys 80. Additional  
5 channels can be accessed by further use of the left and right cursor keys 80, as indicated by arrows 272. The current time 274 and logos 276 may be displayed on both screens 254 and 256.

FIG. 23 is a flow chart of illustrative  
10 actions that may be taken by the program guide when the user selects an advertisement. At step 278, the program guide displays a selectable advertisement as part of a suitable program guide screen. At step 280, the user may use a remote control such as remote  
15 control 74 of FIG. 4a to select a desired advertisement. Selecting an advertisement involves navigating to the advertisement by positioning a highlight on the advertisement with cursor keys 80 and activating a select or "OK" key 82. Any suitable type  
20 of highlight may be used to highlight the advertisement, including highlights based on changes in color, shading, outlines, etc.

The type of action that the program guide takes next depends on the type of advertisement  
25 selected by the user. Actions that may be taken include: tuning to a channel (step 282), setting a reminder for a program (step 284), recording a program (step 286), arranging for the purchase of a pay-per-view program (step 288), arranging for the purchase of  
30 a video-on-demand (VOD) program (step 290), displaying program listings (step 292), displaying additional information (step 294), processing an inquiry for



5                   The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.